



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/388,901	02/19/2009	Yu Zheng	326004.01	2301

69316 7590 01/22/2018
MICROSOFT CORPORATION
ONE MICROSOFT WAY
REDMOND, WA 98052

EXAMINER

NAJARIAN, LENA

ART UNIT	PAPER NUMBER
----------	--------------

3686

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

01/22/2018

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

usdoCKET@microsoft.com
chrioCHS@microsoft.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte YU ZHENG, LIZHU ZHANG, XING XIE,
and WEI-YING MA

Appeal 2016-006442
Application 12/388,901
Technology Center 3600

Before: ELENi MANTIS MERCADER, NORMAN H. BEAMER, and
JASON M. REPKO, *Administrative Patent Judges*.

MANTIS MERCADER, *Administrative Patent Judge*.

DECISION ON REQUEST FOR REHEARING

Appellants requested a rehearing of our Decision dated September 20th, 2017¹, wherein we affirmed the Examiner's rejections of claims 1–15 under 35 U.S.C § 101 as being directed to an abstract idea and the Examiner's rejection of claim 1 under 35 U.S.C § 102(e) as well as of claims 2–6 and 9 under 35 U.S.C §103(a) .

We have reconsidered our Decision regarding the claims in light of Appellants' comments in the Request (Req. Reh'g 2–17). We grant the Rehearing Request to the extent that we consider Appellants' arguments *infra*, but deny the request to modify our Decision. We incorporate our earlier Decision herein by reference. *See* 37 C.F.R. § 41.52(a)(1).

Appellants argue that in light of the recent decisions of *McRO* and *Enfish*² we must reconsider our decision because claim 1 similarly “improves a computer or other technology.” Req. Reh'g. 6. More particularly, Appellants assert that the limitations of claim 1 reciting

receiving location histories of multiple individuals comprising a log of periodically captured geospatial locations which were visited by one or more of the individuals in the geospatial region over a period of time, modeling the location histories of the multiple individuals who travelled through the region, [and] identifying interesting locations in the region using the modeled location histories based on a number of individuals visiting a location in the region weighted in terms of the travel experience of the individuals visiting the location, said travel experience of an individual being based on the number of locations that

¹ We refer to Appellants' Request for Rehearing (“Req. Reh'g.”) filed November 20, 2017 and our Decision on Appeal (“Dec.”) mailed September 10, 2017.

² Referring to *McRO, Inc. v. Bandai Namco Games America Inc.*, 837 F.3d 1299 (2016) and *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327 (Fed. Cir. 2016).

individual has visited in the region in the past, [and] generating a list of the interesting locations identified in the region.

(hereinafter referred to as locations identification limitation) amount to an improvement because Appellants' Specification describes a modeled location histories feature that advantageously exploits the hierarchical structure of the tree-based hierarchical graph (TBHG) by allowing interesting locations and experienced users to be *pre-calculated off-line* for a variety of geospatial regions. Req. Reh'g. 6–12.

We are not persuaded by Appellants' argument. We already addressed this issue by addressing *Alice* (Dec. 4–7). In particular, we stated that since claim 1 is “directed to” a patent-ineligible abstract idea, we considered the elements of the claim—both individually and as an ordered combination—to assess whether the additional elements transform the nature of the claim into a patent-eligible application of the abstract idea as required by step two of *Alice*. *Alice*, 134 S. Ct. at 2355, *discussed in* Dec. 5–7. This is a search for an “inventive concept”—an element or combination of elements sufficient to ensure that the claim amounts to “significantly more” than the abstract idea itself. *Id.* at 6. “[T]he relevant question is whether the claims here do more than simply instruct the practitioner to implement the abstract idea . . . on a generic computer.” *Alice Corp. Pty. Ltd.*, 134 S. Ct. at 2359. *Id.*

We stated, that taking the claim elements separately, the function performed by the computer at each step of the process is conventional. Dec. 6. Using a computer to receive input and generate information from the input to provide the resulting information (i.e., identifying interesting locations in the region) constitute basic computer functions. Dec. 6. Each

method step does no more than require a generic computer to perform generic computer functions. Dec. 6. Conventional algorithm application, whether done ahead of time or in real-time does not improve the computer technology in any way. Inputting in the algorithmic formula the number of times visitors visited the location of interest to provide a recommendation is just such a conventional application. This is conventional computer routines in the art as evidenced by Vengroff teaching

location points that are of interest (e.g., based on those locations being common, repeated, or otherwise frequent destinations of users in a geographic area). The routine may be invoked, for example, with respect to block **1315** of FIG.13, or otherwise directly by other visitization system components or external systems. In the illustrated embodiment, the routine generates location models for locations that are determined to be of interest, which in some embodiments may be Location Spatial Models (“LSMs”)

(para. 25).

In other words, the computer itself is not improved in any way. The current invention simply executes a model or routine conventional in the art unlike *McRO* in which *further automation of computer rules* were deemed to improve the technology. In *McRO* the Court stated that the structure of the limited rules reflects a specific implementation not demonstrated as that which any animator engaged in the search for an automation process would likely have utilized. *McRO* at 1351. Furthermore, the Court noted that by incorporating the specific features of the rules as claim limitations, claim 1 was limited to a specific process for automatically animating characters using particular information and techniques. *Id.* In contrast, in the instant claim there is no claiming of rules and off-line calculations don’t affect the

computer function of any rules in any way. At best, the modeling in the instant case amounts to an automation of a known manual procedure. *See Leapfrog Ent., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1161 (Fed. Cir. 2007). The computer in the instant invention is merely used as a tool to run the modeling algorithm.

As we previously stated, when considering claims purportedly directed to an improvement of computer functionality, the inquiry becomes “whether the focus of the claims is on the specific asserted improvement in computer capabilities . . . or, instead, on a process that qualifies as an ‘abstract idea’ for which computers are invoked merely as a tool.” *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335–36 (Fed. Cir. 2016). Dec. 6. In the instant claim 1, the computer implemented method is merely used as a tool to execute a mathematical formula of weighing input data to provide a solution (i.e., a recommendation). *Id.* Furthermore, collecting information from individuals who previously visited the locations, does not make the content any less abstract because collecting information limited to particular content is within the realm of abstract ideas. *See Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353–54 (Fed. Cir. 2016). *Id.*

Appellants further argue that the Board either misapprehended or overlooked the claimed location weighting feature of the rejected claims (as defined in the Appeal Brief on Page 11) in its affirmation of the Examiner's rejection of Claim 1 under 35 USC §102(e) as being anticipated by Vengroff. Req. Reh’g 15. Appellants asserted that just considering the number of visits to a specific location is not enough to teach the claimed location weighting feature. Req. Reh’g 16. The rejected claims require that these visits be “weighted in terms of the travel experience of the individuals visiting the location” and in addition, the rejected claims recite that the travel

experience of an individual is “based on the number of locations that individual has visited in the region in the past” (*id.*).

We do not agree with Appellants’ argument. As we previously explained, Vengroff discloses that “ $p(L_v)$ represents the prior probability distribution of visits to L_v or its ‘popularity’ which we can approximate by the to-date observed frequency of visits and refine as likely new visits are detected, while $p(VL_1)$ is *the prior distribution of visits by the specific user to the location*” (para. 76). Dec. 7. Thus, there is consideration of the number of visits at the specific location by the specific user. *Id.* Appellants’ claim defines “weighed” in terms of the “travel experience” and the “travel experience” as “the number of locations that individual has visited in the region in the past” (*see* claim 1). Thus, the “weighed” term is in essence the number of times the user returned to the particular location. Accordingly, Vengroff’s prior distribution of visits by the specific user to the location meets the “weighed” term as claimed.

DECISION

For the reasons stated above, Appellants have not persuaded us that we misapprehended or overlooked any issue of fact or law in our Decision.

We have *granted* Appellants’ Request for Rehearing to the extent that we have reconsidered our Decision dated September 20th, 2017, but we *deny* Appellants’ request to make any changes therein.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 41.50(f).

REHEARING DENIED